

WHAT IS CLAIMED IS:

1. A beverage bottling plant for filling bottles with a liquid beverage filling material, said beverage bottling plant comprising:
 - a filling machine being configured to fill empty bottles with liquid beverage filling material;
 - a conveyer arrangement being configured and disposed to move empty bottles to said filling machine;
 - said filling machine comprising a rotor having a peripheral portion;
 - said filling machine defining a vertical axis about which said rotor is configured to rotate;
 - said beverage filling machine comprising a plurality of beverage filling positions disposed about said peripheral portion of said rotor;
 - each beverage filling position comprising a beverage filling device for filling bottles with liquid beverage filling material;
 - each filling device comprising apparatus being configured to introduce a predetermined volume of liquid beverage filling material into the interior of bottles to a substantially predetermined level of liquid beverage filling material;
 - said apparatus being configured to introduce a predetermined

volume of liquid beverage filling material comprising apparatus being configured to terminate the filling of beverage bottles upon liquid beverage filling material reaching said substantially predetermined level in bottles;

each filling position comprising a support configured and disposed to maintain a bottle in a predetermined position for filling a by a corresponding filling device;

each filling position comprising an arrangement to seal a bottle for filling a bottle with an effervescent beverage;

apparatus being configured to raise and to lower said bottle support and a bottle supported thereby;

said apparatus being configured to raise and lower said bottle support comprising:

a rod having a first, lower, end and a second, upper, end remote from said lower end;

said lower end of said rod being secured to said rotor of said filling machine;

a cylinder having a longitudinal axis and having outer and inner walls disposed about the longitudinal cylinder axis;

said inner cylinder wall being configured and disposed to

slide on said rod to permit up-and-down movement of said cylinder;

· said cylinder having a first, upper, end and a second, lower, end remote from said upper end of said cylinder;

said bottle support being secured to said upper end of said cylinder to permit raising and lowering of said bottle support and a bottle supported thereby;

a collar secured to said lower end of said cylinder;

a first, upper, stop structure secured to said rotor of said filling machine adjacent said upper end of said rod;

said cylinder outer wall being configured to slide within said upper stop structure;

a second, lower, stop structure operatively connected to said upper stop structure and being configured and disposed to slide on said outer cylinder wall;

a spring disposed between said upper stop structure and said lower stop structure and being configured to be compressed between said upper stop structure and said lower stop structure;

said rod comprising a longitudinal bore configured to permit passage of a pressure medium from said lower end of said rod

into said cylinder;

said cylinder being configured to be raised by a first, lower, pressure of a pressure medium passing through said longitudinal bore of said rod and thus raising said bottle support and a bottle supported thereby to a first, lower, position being a position in which a bottle is disposed remote from said seal arrangement which lower position is configured for filling of a bottle with a still beverage;

said cylinder being configured to be raised by a second pressure, being a pressure higher than the first pressure, of a pressure medium passing through said longitudinal bore of said rod and thus raising said bottle support and a bottle supported thereby to a second, higher, position being a position in which a bottle is sealed to said sealing arrangement which higher position is configured for filling of a bottle with an effervescent beverage;

said collar being configured to be disposed against said lower stop structure to maintain said bottle support and a bottle supported thereby in the lower position upon the lower pressure being applied in said cylinder;

said spring being configured and disposed to be compressed between said upper stop structure and said lower stop structure by said collar upon the higher pressure being applied in said cylinder to permit raising of said bottle support and a bottle supported thereby to the higher position.

2. The beverage bottling plant for filling bottles with a liquid beverage filling material according to claim 1, wherein:

said spring comprises at least one coil spring.

3. The beverage bottling plant for filling bottles with a liquid beverage filling material according to claim 2, wherein:

said at least one coil spring comprises one of: plastic and, metal.

4. A beverage bottling plant for filling bottles with a liquid beverage filling material, said beverage bottling plant comprising:

a filling machine being configured to fill empty bottles with liquid beverage filling material;

a conveyer arrangement being configured and disposed to move

empty bottles to said filling machine;

said filling machine comprising a rotor having a peripheral portion;

said filling machine defining a vertical axis about which said rotor is configured to rotate;

said beverage filling machine comprising a plurality of beverage filling positions disposed about said peripheral portion of said rotor;

each beverage filling position comprising a beverage filling device for filling bottles with liquid beverage filling material;

each filling device comprising apparatus being configured to introduce a predetermined volume of liquid beverage filling material into the interior of bottles to a substantially predetermined level of liquid beverage filling material;

said apparatus being configured to introduce a predetermined volume of liquid beverage filling material comprising apparatus being configured to terminate the filling of beverage bottles upon liquid beverage filling material reaching said substantially predetermined level in bottles;

each filling position comprising a support configured and disposed to maintain a bottle in a predetermined position for filling a

by a corresponding filling device;

apparatus being configured to raise and to lower said bottle support and a bottle supported thereby, said lifting apparatus comprising:

a chamber configured to receive a pressure medium;

a stop structure being configured to permit a plurality of stroke lengths of said lifting apparatus depending upon the pressure exerted by the pressure medium in said chamber to raise said bottle support and a bottle supported by said bottle support, adjacent a filling device, to at least two predetermined levels.

5. The beverage bottling plant according to claim 4, comprising:

a conduit, for the pressure medium, which conduit is connected to said chamber configured to receive a pressure medium.

6. The beverage bottling plant according to claim 5, comprising:
a biasing member operatively connected to said stop structure;
said stop structure is configured and disposed to compress said

biasing member to permit raising of said bottle support and a bottle supported thereby to at least two predetermined levels.

7. The beverage bottling plant according to claim 6, wherein:
said stop structure comprises a structure configured to receive
said biasing member.

8. The beverage bottling plant according to claim 7, wherein:
said chamber is configured to receive a first pressure of the
pressure medium to raise said bottle support and a bottle supported
thereby to a first level and to receive a second, higher, pressure of
the pressure medium to raise said bottle support and a bottle
supported thereby to a second, higher, level.

9. The beverage bottling plant according to claim 8, wherein:
said biasing member comprises at least one of: (a) and (b),
wherein (a) and (b) comprise:

(a) a spring; and

(b) a structure configured to be actuated by at least one
of: a hydraulic pressure and a pneumatic pressure.

10. The beverage bottling plant according to claim 9, wherein:
said spring comprises at least one coil spring.

11. The beverage bottling plant according to claim 10, wherein:
said stop structure is configured to contain at least a portion of
said at least one coil spring.

12. The beverage bottling plant according to claim 11, wherein:
said at least one coil spring comprises one of: plastic and,
metal.

13. A container filling plant container lifting apparatus
configured to raise and to lower a container support and a container
supported thereby in a container filling machine having a plurality of
filling elements, said lifting apparatus comprising:
a chamber configured to receive a pressure medium;
a stop structure being configured to permit a plurality of stroke
lengths of said lifting apparatus depending upon the pressure exerted
by the pressure medium in said chamber to raise said container
support and a container supported by said container support, adjacent

a filling element, to at least two predetermined levels.

14. The container filling plant container lifting apparatus according to claim 13, wherein:

said lifting apparatus comprises a conduit, for a pressure medium, which conduit is connected to said chamber configured to receive a pressure medium.

15. The container filling plant container lifting apparatus according to claim 14, comprising:

a biasing member operatively connected to said stop structure;
said stop structure is configured and disposed to compress said biasing member to permit raising of said container support and a container supported thereby to at least two predetermined levels.

16. The container filling plant container lifting apparatus according to claim 15, wherein:

said stop structure comprises a structure configured to receive said biasing member.

17. The container filling plant container lifting apparatus according to claim 16, wherein:

said chamber is configured to receive a first pressure of the pressure medium to raise said container support and a container supported thereby to a first level and to receive a second, higher, pressure of the pressure medium to raise said container support and a container supported thereby to a second, higher, level.

18. The container filling plant container lifting apparatus according to claim 17, wherein:

said biasing member comprises at least one of: (a) and (b), wherein (a) and (b) comprise:

(a) a spring; and

(b) a structure configured to be actuated by at least one of: a hydraulic pressure and a pneumatic pressure.

19. The container filling plant container lifting apparatus according to claim 18, wherein:

said spring comprises at least one coil spring.

20. The container filling plant container lifting apparatus according to claim 19, wherein:

said stop structure is configured to contain at least a portion of said at least one coil spring;

said at least one coil spring comprises one of: plastic and, metal.